Myrmidone seems doubtful. Argynnis Edwardsii is surely a good species, against Staudinger's opinion. Grapta Faunus is G. c-album var. b. (Dec. 11, 1874.)

§ 25. EXTENT OF THE NORTH AMERICAN FAUNAL REGION SOUTHWARDS. Dr. H. A. HAGEN called attention to the circumstance that none of the Agrionina, Gomphina or Cordulina found in America were found either in Europe or in Asia. He said that although, when he wrote his Synopsis of the [Pseudoneuroptera and] Neuroptera of North America, he had considered the fauna of the Antilles and of Central America a part of the North American fauna, he had since found these faunæ to be more closely connected than he knew them to be then. He had found that some southern forms of insects go northwards as far as Long Island, Nantucket, and the south shore of Cape Cod. [See Psyche, vol. i, p. 64; Proc., § 2.]

§ 26. Attachment of Pollinia to Insects. Dr. H. A. Hagen spoke upon the possibility of error in the description of some insects, occasioned by the attachment of foreign substances to them, and cited as an instance a case of the attachment of the pollinia of Asclepias to the tarsi of the intermediate legs of a Mantispa, which he had described without being aware of their true nature.

(April 9, 1875.)

BIBLIOGRAPHICAL RECORD.

(Continued from page 32,)

The date of publication, here given in brackets [], marks the time at which the work was received by the Editor, unless an earlier date of publication is known to him. An asterisk * before a title is the Recorder's certificate of accuracy of quotation. Corrections of errors and notices of omissions are solicited. — B. PICKMAN MANN.

Nos. 781 to 787 are from Nat. Can., vol. viii.

* 781. L. Provancher. Les [corr.] Phryganes. p. 81-87. [March, 1876.]

Habits of Phryganid larvæ; manner in which their cases are constructed; swarming of Macronema zebratum.

* 782. L. Provancher. Une Pluie d' Insectes. p. 125–127. [April, 1876.]

Fall of a multitude of *Capnia pygmaea* upon the snow at Rivière du Loup, Témiscouata Co., Quebec, March 27, 1876; description; habits; vernacular name.

* 783. L. Provancher. Petite Faune Entomologique du Canada. — Troisième Ordre. — Les Névroptères. Neuroptera. pp. 177-191 [June, 1876], 209-218 [July], 264-268 [Sept.], 309-315, fig. 19-20 [Oct., 1876.] [See Rec., No. 787.]

Characters and peculiarities of the order and families of Neuroptera [including Pseudoneuroptera]; about 10,000 species are known, of which nearly 130 are found in Quebee; distinguishes synoptically 16 families and (in 4 families) 15 genera and 44 species; describes the species; Psocus canadensis, Ps. trifasciatus, Pteronarcys rectus, P. bicarinatus, P. flavicornis, Perla quebecensis, P. hieroglyphica, P. marginipes, P. navalis, P. riparia, P'sulcata, P. naica, Nemoura nigritta, Cloë quebecensis = 14 n. spp.; describes and figures the neuration of the wing of Odonata.

* 784. L. Provancher. Un autre Parasite sur le Corps Humain. p. 244–245. [Sept., 1876.]

Ixodes bovis? extracted from a tumor in the umbilical region of a girl; description and habits of the genus.

* 785. L. Provancher. L' Exposition de Philadelphie. pp. 246-256 [Sept., 1876], 277-288 [Sept.], 318-320 [Oct.], 341-352 [Nov., 1876], 371-384 [Jan., 1877]. [Concluded in vol. ix, pp. 27-32 (Jan., 1877), 50-64 (Feb., 1877).]

Present dispersion of *Doryphora 10-lineata* in Quebec; its habits and vernacular names; means against it. Ornamental and remarkable Brazilian insects. Preparation of raw silk. List of (6) insects captured in Philadelphia, (1) at Portland, and (5) at Upper Bartlett, N. H.

* 786. L. Provancher. Additions aux Ichneumonides de Québec. pp. 315-318 [Oct., 1876], 327-328 [Nov., 1876].

Describes Coleocentrus rufus, Phygadeuon niger, Ph. Cressoni, Cteniscus rufus, Tryphon Clapini, Paniscus rufulus, Atractodes singularis = 7 n. spp.; adds 1 genus and 9 species to the previous list [see Rec., No. 773].

* 787. L. Provancher. Faune Canadienne. — Les Insectes. — Névroptères. p. 321–327 [Nov., 1876].

[Cont. from Rec., No. 783.] Characters of Lestes and Agrion; synopsis of their (9) species, which are described; Agrion canadense = 1 n. sp. [Cont. in vol. ix.]

* 788. **P. Garneau.** General Report of the Commissioner of Agriculture and Public Works of the Province of Quebec for the year ending on the 30th of June 1874. — Printed by order of the Legislative Assembly. — Montreal: 1874. 8vo. pg. 4, clxxv, 162.

Contains No. 789.

* 789. D. N. St. Cyr. Entomology of the County [corr.] of Champlain. p. 115-117. [Feb., 1875.]

List of a 38 Coleoptera and 21 Hemiptera collected on a trip.

* 790. N. M. Hentz. The Spiders of the United States. — A Collection of the Arachnological Writings of Nicholas Marcellus Hentz, M. D. Edited by Edward Burgess, with Notes and Descriptions by James H. Emerton. Boston: Boston Society of Natural History. 1875. — Also entitled: Occasional Papers of the Boston Society of Natural History. II Boston: Printed for the Society. 1875. 8vo. pg. xiii, 171, with 21 plates. [Dec., 1875.]

Titles; Preface [origin, purpose and plan of this volume; sketch of Hentz's life; List of the Writings of Prof. Hentz]. Reprint of "all" [the important part] of Hentz's arachnological writings, viz.: from Am. Journ. Science and Arts, xxi, p. 99–109 (1832); do., xli, p. 116 (1841); Bost. Journ. Nat. Hist., iv, pp. 54–57, 223–231, pl. 7–8 (1842), p. 386–396, pl. 17–19 (1844); do., v, pp. 189–202, pl. 16–17 (1845), p. 352–370, pl. 21–22 (1846), p. 443–479, pl. 23–24, 30–31 (1847); do., vi, pp. 18–35, 271–288, pl. 3–4, 9–10 (1850); Proc. B. S. N. H., xi, p. 103–111, with two plates; Journ. Acad. Nat. Sci., ii, p. 53–55 (1821). Treats of 40 genera and 254 species.

"Before his time, with the exception of a few accidental descriptions scattered through the works of writers, for the most part European, nothing relating to North American Spiders had been published." "As little progress since, as before, Hentz's time has been made."

* 791. **Dr. Henri de Saussure.** Synopsis of American Wasps. — Solitary Wasps. — [Smithsonian Miscellaneous Collections. — 254 —] Washington: Smithsonian Institution. December, 1875. 8vo. pg. xxxv, 392, with four plates (i–iv), containing 31 figures. [Dec., 1876.]

Title; advertisement; dedication [to Mr. Edward Norton, translator of the work from the French], p. i-iv. Preface [account of the author's previous writings on Vespidae and of the materials used as basis for this work], p. v-ix. Introduction [problems of philosophical zoology for the solution of which entomology is particularly adapted; comparative merits of relative and absolute descriptions of species; relative constancy of structural and colorational characteristics; rules of nomenclature; "in insects in general, the female represents the type of the species;" preparation of specimens for the cabinet; determination of insects], p. xi-xxiii. Analytical Table [of contents; synopsis of the classification adopted], p. xxv-xxxv.

Synopsis of the 3 subfamilies of Vespidae; description of 177 (3 Masa-

ris, 23 Zethus, 1 Discoelius, 24 Eumenes, 5 Montezumia, 6 Monobia, 2 Nortonia, 1 Rhynchium, 6 Symmorphus, 29 Aneistrocerus, 70 Odynerus [sensstrict.], 1 Epiponus, 1 Leptochilus, 4 Pterochilus, 1 Alastoroides, 3 doubtful) species of America north of the Isthmus of Panama and catalogue (with diagnoses of many species) of 136 (1 Trimeria, 1 Gayella, 30 Zethus, 1 Labus, 1 Discoelius, 29 Eumenes, 17 Montezumia, 4 Monobia, 1 Symmorphus, 10 Ancistrocerus, 34 Odynerus, 1 Epiponus, 1 Ctenochilus, 1 Alastoroides, 1 Alastor, 3 doubtful) species of South America, besides 13 species from both Americas or of doubtful or foreign origin, including 25 N. A. and 12 S. A. n. spp., comprised in 2 subfamilies and 20 genera; the following names of groups or genera seem to be new: Antezumia, Metazumia, Pseudozumia, Nortonia, Pachodynerus, Epiponus [in place of Epipona]; special observations upon the affinities, geographical distribution, classification and determination of the species of Odynerus [sens. lat.], with synoptical tables.

* 792. S. H. Scudder. Notice of the Butterflies and Orthoptera, collected by Mr. George M. Dawson, as Naturalist of the B. N. A. Boundary Commission. 8vo. pg. 5. [Sept., 1875.]

Localization of the region in which collections were made; comparison of the butterfly faunæ of this region and that of the Yellowstone [see Rec., No. 179]. List of 22 butterflies and 15 Orthoptera, with notes on abundance, seasons, habitat and varietal characters. Describes Pezotettix Dawsoni, Gomphocerus clepsydra, Arphia frigida, Tettigidea acadica = 4 n. spp.

* 793. John C. Wise, Warren Smith and Allen Whitman. The Grasshopper, or Rocky Mountain Locust, and its Ravages in Minnesota. — A Special Report to the Hon. C. K. Davis Governor of Minnesota. — Five thousand copies ordered printed. — Saint Paul: The Pioneer-Press Company. 1876. Svo. pg. 50, with eight figures. [Feb., 1876.]

Title; list of writings and other sources from which information was obtained; record of invasions of *Caloptenus spretus* since 1819 and particularly of invasions of Minnesota; years, seasons and places of invasion and departure; amount of devastation caused; characteristics, relationships and descriptions (with figures) of *C. spretus*, *C. femarrubrum*, *C. differentialis*, *C. bivittatus*, *C. atlanis*; growth, habits, native breeding-grounds, oviposition and food of *C. spretus*; natural and artificial means of destruction of the locusts; climatic influences; enemies; parasites.

* 794. John S. Pillsbury, Chas. V. Riley and Pennock Pusey. The Rocky Mountain Locust, or Grasshopper, being the Report of Proceedings of a Conference of the Governors of several Western States and Territories, together with

several other gentlemen, held at Omaha, Nebraska, on the 25th and 26th days of October, 1876, to consider the Locust Problem; also a Summary of the best means now known for counteracting the evil.—Saint Louis: 1876. 8vo. pg. iii, 58, fig. 1–8. [Jan., 1877.]

Preface. Proceedings [list of members of the conference; addresses by Gov. John S. Pillsbury and Pennock Pusey of Minnesota, Cyrus Thomas of Illinois, Gov. Samnel J. Kirkwood of Iowa, Gov. John L. Pennington of Dakota Territory, Gov. C. H. Hardin and C. V. Riley of Missouri, ex-Gov. Robert W. Furnas, A. D. Williams and C. D. Wilber of Nebraska, Gov. Thomas A. Osborne of Kansas, and remarks by others, embracing statements of the importance of the "locust problem," means for its solution and the history of locust invasions; memorial to Congress; letter to the President of the United States], p. 1–36. Practical Considerations and Suggestions for the repression of the Rocky Mountain Locust (Caloptenus spretus, Thomas) [description, oviposition, transformations and habits of the locust, its enemies and parasites; means against it in its various stages; describes Anthomyja calopteni n. sp.], p. 37–58, fig.

* 795. U. S. Entomological Commission [C. V. RI-LEY, A. S. PACKARD, JR., CYRUS THOMAS]. Circular No. 1. 8vo. pg. 4. [May, 1877.]

Queries regarding the migrations, appearance, habits and devastations of Caloptenus spretus, with directions for making replies.

* 796. **U. S. Entom. Comm.** Circular No. 2. 8vo. pg 4. [May, 1877.]

Statement of the plans of each Commissioner; area and divisions of the subject assigned to each; petition (by C. V. Riley) for information regarding the natural history, insect enemies and parasites of *Caloptenus spretus* and other locusts and the remedial measures employed against the locusts in their various stages.

* 797. Bulletin of the United States Entomological Commission. [Department of the Interior. U. S. Geological and Geographical Survey of the Territories. F. V. Hayden, in charge.] Destruction of the young or unfledged Locusts. No. 1. Washington: 1877. 8vo. pg. 12. [May, 1877.]

Title; Preface [announcement regarding the proposed publications of the commission]. Enumeration of artificial and natural means of destroying the young or unfledged locusts; quotation of laws passed by the States of Missouri, Kansas and Minnesota to provide for the destruction of grass-hoppers and their eggs.

* Supplement to Bulletin No. 1. 8vo. pg. 2. [May, 1877.] Summary of means for the destruction of young locusts.

* 798. Bull. U. S. Entom. Comm. [See Rec., No. 797.] On the Natural History of the Rocky Mountain Locust, and on the Habits of the young or unfledged Insects as they occur in the more fertile country in which they will hatch the present year. No. 2. Washington: May, 1877. 8vo. pg. 15, fig. 1–11, map. [May, 1877.]

Description, oviposition, hatching, transformations and habits of Caloptenus spretus; map of the country that will suffer most severely, showing

the eastern limit of injury the present year.

* 799. The Trans. Amer. Entom. Soc. [see Rec., Nos. 318–331], vol. v, from p. 119, contain the following, and Nos. 800 to 817.

Title, p. i. List of Papers, p. iii-iv. Index, p. 293-300. Each plate has a page of explanation. [Figures 26 and 27 of Plate I, illustrating the sexual characters of *Calosoma Sayi* & and *Etasmocerus terminatus* & \(\foat{\text{?}} \), respectively, seem to correspond to nothing in the text.]

* 800. E. T. Cresson. Descriptions of New Species of Mutilla. p. 119–120. [March, 1875.]

Describes Mutilla peculiaris, M. tecta, M. erudita, M. pacifica, M. Arota from California, M. Edwardsii from Oregon, M. Ursula from Texas and Oregon = 7 n. spp.

* 801. G. H. HORN. Notes on the Species of Rhipiphorus of the United States. p. 121-125. [Sept., 1875.]

Defines synoptically and describes 8 spp.; Rh. biforeatus from Illinois = 1 n. sp.; notes on structural characters and sexual differences. Synonymy of some of Dejean's names.

* 802. G. H. Horn. Synonymical Notes and Descriptions of New Species of North American Colcoptera. p. 126–156, with eight figures. [Sept., 1875.]

Defines synoptically the (14) species of Amara proper, (4) [subg.] Bradytus, (5) Patrobus, (3) Trechus, (1) Scaphidium [4 varieties]. (6) Ips. (2) Pityophagus, (4) Perimegatoma, (5) Onthophagus, (4) Ligyrus, (5) Strategus [with figures], (6) Zonitis of America north of Mexico, also 3 species of Anisodaetylus from California and Oregon; describes as new: Amara insularis from Cal., A. (Bradytus) Putzeysii from Newfoundland, Perimegatoma [n. g. Dermestidae], P. falsum from Cal., P. variegatum from Cal. and Oreg., Onthophagus velutinus from Lower Cal. and Ariz., Dialy'es Ullei from Md., Gyascutus californicus from Cal., Chalcophora Fulleri from Tex., Buprestis (Ancylochira) connexa from Oreg. and Owens' Valley, Scotobates [n. g. Tenebrionidae, in place of "Centronopus"], Cordylospasta [n. g. Meloidae], C. Fulleri from Nev., Epicauta Batesii from Ga. and Fla., E. oregona from Oreg., Gnathospasta [n. g. Meloidae], G. mimetica from Tex.,

Cantharis (Lytta) mutilata from Ariz., Zonitis vittipennis from Ariz., Cistela Thevenetii from Cal., C. variabilis from Cal. = 4 n. gen., 17 n. spp.; notes upon synonymy or geographical distribution of about 110 species; suggests the restoration of the generic name Oedudes (Thoms.) [Cerambycidae.]

* 803. J. L. LeConte. Notes on Cicindelidæ of the United States. p. 157-162, with five figures. [Sept., 1875.]

Describes Omus Hornii from Cal., Cicindela Wapleri from Miss., C. nevadica from Nev., C. politula from Tex., C. striga from Fla., C. maga from La., C. hirtilabris from Fla. = 7 n. spp.; notes on varieties, races and geographical distribution of 6 other species.

* 804. J. L. LeConte. Notes on the Rhysodidae of the United States. p. 162–168, with four figures. [Sept., 1875.]

Defines 2 spp. Rhysodes and 2 spp. Clinidium; describes Rh. hamatus from Cal., C. calcaratum from Vancouver I. and Oregon = 2 n. spp.; complexity of affinities between Rhysodidae, Cupesidae and other families, indicating the primordial character of the former families; affinities of Trictenotoma.

* 805. J. L. LeConte. Descriptions of New Coleoptera of the United States with notes on geographical distribution. p. 169–176. [Nov., 1875.]

Describes Dyschirius salivagans [see Rec., Nos. 601, 605, 606] from Utah, Holciophorus serripes from Cal., Zalobius serricollis from Cal., Dacne picea from Cal., Hypodacne [n. g. Erotylidae], H. punctata from Atlantic District, Triphyllus elongatus from Alaska to Cal., Cyphon robustus from N. Y., Eucinetus strigosus from Penn., E. punctulatus from Mich., Dictyoptera rubripennis from Col., D. dimidiata from Cal., D. ruficollis from Col. and Oreg., Elaphidion alienum from Ariz., Purpuricenus magnificus from Ariz., Leptura anthracina from Oreg., Tanarthrus salicola [see Rec., Nos. 601, 605, 606] from Utah, Mecynotarsus candidus from S. C., M. elegans from Fla., Xylophilus impressus from Tex., X. ater from Tex., X. nebulosus from Penn. and La., X. subfasciatus from Atlantic District, X. brunnipennis from S. C., Ills., Tex., X. ventricosus from Southern States = 1 n. g., 24 n. spp.; notes on distribution or synonymy of 6 other species.

* 806. G. H. Horn. Revision of the United States species of Ochodæus and other Genera of Scarabæidæ. p. 177–197, with four figures. [March, April, 1876.]

Describes the specific and sexual characters, and defines synoptically the (8) species of Ochodaeus [with figures], (3) Macrodactylus, (15) Dichelonycha, (3) Coenonycha, (6) Trichius, (1) Gnorimus, with bibliography, synonymy and habitats of the species; describes as new: Ochodaeus Ulkei from Nev., Macrodactylus uniformis from Ariz., Dichelonycha canadensis from Canada, D. Crotchii from Cal., D. clypeata from Cal., Coenonycha, C. socialis from Guadalnpe I., C. ovipennis from Nev., Trichius texanus from Tex. and Fla. = 1 n. g., 8 n. spp.